

AIR QUALITY PERMIT

Issued to: Busch Agricultural Resources, Inc.
P.O. Box 789
Fairfield, MT 59436

Permit: #2723-02
Modification Request Received: 09/23/04
Preliminary Determination Issued: 11/01/04
Department Decision on Modification: 11/17/04
Final Permit Issued: 12/03/04
AFS#: 099-0002

An air quality permit, with conditions, is hereby granted to Busch Agricultural Resources, Inc. (BARI), pursuant to Sections 75-2-204 and 211 of the Montana Code Annotated (MCA), as amended, and Administrative Rules of Montana (ARM) 17.8.701, *et seq.*, as amended, for the following:

SECTION I: Permitted Facilities

A. Plant Location

BARI's Fairfield Elevator is located at the SW¼ of Section 34, Township 22 North, Range 3 West, Teton County, Montana.

B. Permitted Facility

The facility is a grain storage elevator. The process includes grain receiving via truck and railcar, storage, cleaning, and shipping the grain via truck and railcar.

C. Current Permit Action

On September 23, 2004, the Department received an application from BARI's for the installation of 11 additional 217,000 bushel storage bins, the installation of a 20,000 bushels per hour (bph) grain elevator and associated conveying equipment, and the upgrade of the two south railcar loadouts. The additional storage capacity at the facility would result in a total facility-wide storage capacity of 3.49 million bushels (MMBu), which would subject the new and modified units of the facility to the Standards of Performance for New Stationary Sources (NSPS) Subpart DD, Standards of Performance for Grain Elevators.

In addition, the existing permit limits are based upon outdated AP-42 emission factors. The current permit action will update the AP-42 emission factors for calculating allowable emission rates.

SECTION II: Conditions and Limitations

A. Emission Limitations

1. BARI shall operate and maintain all emission control equipment in accordance with manufacturer's instructions to provide maximum pollution control (ARM 17.8.749).
2. BARI shall fully enclose all drag conveyors and bucket elevators and vent the emissions to the fabric filter (ARM 17.8.749).
3. BARI shall minimize product drop height and use a telescoping load-out chute during production load-out to ensure compliance with the 20% opacity limitation (ARM 17.8.749).

4. BARI shall vent the railcar receiving/unloading bin to the main dust control system (ARM 17.8.749).
5. BARI shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any sources installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304).
6. BARI shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter (ARM 17.8.308).
7. BARI shall treat all unpaved portions of the haul roads, access roads, parking lots, or general plant area with water and/or chemical dust suppressant as necessary to maintain compliance with the reasonable precautions limitation in Section II.A.6 (ARM 17.8.749).
8. BARI shall not cause or authorize to be discharged into the atmosphere, from any stack, emissions from the dust bin bag filter vent, or any visible fugitive emissions from the bucket elevators (legs), scale hoppers, surge bins, turnheads, scalpers, cleaners, trippers, the head house, grain handling operation or other such structures, which exhibit greater than 5% opacity, averaged over 6 consecutive minutes (ARM 17.8.340 and 40 CFR 60, Subpart DD).
9. BARI shall comply with all applicable standards and limitations, and the reporting, recordkeeping and notification requirements contained in the Code of Federal Regulations (CFR) 40 CFR 60, Subpart DD (ARM 17.8.340 and 40 CFR 60, Subpart DD).
10. BARI shall process no more than 12 million bushels of grain per year in the North and South Elevators combined (ARM 17.8.749).

B. Testing Requirements

1. Within 60 days after achieving the maximum production rate, but not later than 180 days after initial start up of the Railcar Loadouts, an EPA Method 9 opacity test and/or other methods and procedures as specified in 40 CFR Part 60.675 must be performed on the railcar receiving/unloading bin, to demonstrate compliance with the emission limitations contained in Section II.B.3 (ARM 17.8.340, 40 CFR Part 60, General Provisions, and Subpart DD).
2. All compliance source tests shall conform to the requirements of the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).
3. The Department may require further testing (ARM 17.8.105).
4. BARI shall conduct visible emission observations on the bag filter system (south elevator) annually to assess compliance with the opacity limitation in Section II.A.8. The visible emission observations shall be conducted in accordance with the Montana Source Test Protocol and Procedures Manual with the exception that the observations do not have to be performed by currently certified visible emission evaluators. The evaluators must have attended the classroom portion of a visible emissions course at least once and the field certification portion of this course in the last two years (ARM 17.8.104 and 17.8.749).

C. Notification

1. BARI shall provide the Department with written notification within 30 days after commencement of construction of the new south grain elevator (ARM 17.8.749).
2. BARI shall provide the Department with written notification of the actual start-up date of the south grain elevator within 15 days after the actual start-up date (ARM 17.8.749)

D. Operational Reporting Requirements

1. BARI shall supply the Department with annual production information for all emission points, as required by the Department in the annual emission inventory request. The request will include, but is not limited to, all sources of emissions identified in the emission inventory contained in the permit analysis.

Production information shall be gathered on a calendar-year basis and submitted to the Department by the date required in the emission inventory request. Information shall be in the units required by the Department. This information may be used for calculating operating fees, based on actual emissions from the facility, and/or to verify compliance with permit limitations (ARM 17.8.505).

In addition, BARI shall submit the following information annually to the Department by March 1st of each year. This information is required for the annual emission inventory as well as to verify compliance with permit limitations (ARM 17.8.505):

- a. Bushels of grain received annually (North Elevator);
- b. Bushels of grain received annually (South Elevator);
- c. Bushels of grain cleaned annually (South Elevator);
- d. Bushels of grain shipped by rail annually (North Elevator);
- e. Bushels of grain shipped by rail annually (South Elevator);
- f. Bushels of grain shipped by truck annually (South Elevator);
- g. Hours of operation annually (North Elevator);
- h. Hours of operation annually (South Elevator);
- i. Amount of dust handled in the dust control system (South Elevator);
- j. Fugitive Emissions from vehicles:
 - i. Total number of truckloads received annually;
 - ii. Average truck capacity;
 - iii. Average vehicle weight, loaded;
 - iv. Average vehicle weight, unloaded;
 - v. Average number of tires on vehicle;
 - vi. Average trip length; and
 - vii. Average vehicle speed.

k. Operation and Maintenance Program reporting:

- i. Results of any opacity observations;
- ii. Results of periodic inspections and any corrective action taken; and
- iii. Any malfunctions, including date, time, nature of malfunction, any corrective action taken, and any exceedences of any applicable opacity standard.

- 2. BARI shall notify the Department of any construction or improvement project conducted, pursuant to ARM 17.8.745, that would include a change in control equipment, stack height, stack diameter, stack flow, stack gas temperature, source location, or fuel specifications, or would result in an increase in source capacity above its permitted operation or the addition of a new emission unit. The notice must be submitted to the Department, in writing, 10 days prior to start-up or use of the proposed de minimis change, or as soon as reasonably practicable in the event of an unanticipated circumstance causing the de minimis change, and must include the information requested in ARM 17.8.745(1)(d) (ARM 17.8.745).
- 3. All records compiled in accordance with this permit must be maintained by BARI as a permanent business record for at least 5 years following the date of the measurement, must be available at the plant site for inspection by the Department, and must be submitted to the Department upon request (ARM 17.8.749).
- 4. BARI shall document, by month, the total amount of grain received at this facility. By the 25th of each month, BARI shall total the monthly grain received during the previous 12 months to verify compliance with the limitation in Section II.A.10. A written report of the compliance verification shall be submitted along with the annual emissions inventory (ARM 17.8.749).
- 5. If any visible emission observation taken is in excess of the visible emission limitations, BARI shall notify the Department of the results of the visible emission observation and BARI's response to the situation, such as the reasons for the excessive emissions and any corrective actions taken, within 5 working days of the date the visible emission observation was taken (ARM 17.8.749).

E. Operation and Maintenance Requirements

- 1. BARI shall comply with the following operating and maintenance schedule for the North and South Elevator's Gerber High Efficiency Cyclones (Dust Control Systems 1 & 2):
 - a. Daily
 - i. Check the air discharge from the system to ensure it is clean and dust free (20% opacity limit);
 - ii. Record daily observations and review to ensure that no gradual increase in emissions has been observed;
 - iii. Observe air lock turning and cyclone to ensure the dust is discharging continually; and
 - iv. Record any routine maintenance or corrective actions taken.

- b. Monthly (during operating season)
 - i. Check the duct work and hoods for holes, leaks or obstructions; and
 - ii. Conduct housekeeping check of the elevator for piles of dust indicating leaks in the transfer systems; and
 - iii. Listen to the dust system to identify any leaks or obstructions.
 - c. Every 3 Months
 - i. Check the oil level in all gear boxes (do not overfill); and
 - ii. Check fan and motor bearings for heat, noise and/or excessive vibration.
 - d. Annually
 - i. Check all belt drives for wear and proper tension; and
 - ii. Visible emission testing shall be conducted in accordance with the requirements of Section II.C by a trained BARI employee.
2. BARI shall comply with the following operating and maintenance schedule for the South Elevator's Dust Bin Vent Fabric Filter:
- a. Daily
 - i. Check for proper operation of the pressure guage on filter;
 - ii. Record the reading on the filter pressure guage;
 - iii. Check the air discharge from the system to ensure it is clean and dust free (5% opacity limit); and
 - iv. Record any routine maintenance or corrective actions taken.
 - b. Monthly (during operating season)
 - i. Check the fabric filter housing for holes, leaks or obstructions; and
 - ii. Check fan and purge motor bearings for heat, noise and/or excessive vibration.
 - c. Every 3 Months
 - i. Check the oil level in air compressor and all gear boxes (do not overfill); and
 - ii. Check fan and purge motor bearings for heat, noise and/or excessive vibration.
 - d. Annually
 - i. Check all belt drives for wear and proper tension; and
 - ii. Visible emission testing shall be conducted in accordance with the requirements of Section II.C by a trained BARI employee.

SECTION III: General Conditions

- A. Inspection – BARI shall allow the Department's representatives access to the source at all times for the purpose of making inspections or surveys, collecting samples, obtaining data, auditing any monitoring equipment (CEMS, CERMS) or observing any monitoring or testing, and otherwise conducting all necessary functions related to this permit.
- B. Waiver – The permit and all the terms, conditions, and matters stated herein shall be deemed accepted if BARI fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving BARI of the responsibility for complying with any applicable federal or Montana statute, rule or standard, except as specifically provided in ARM 17.8.740, *et seq.* (ARM 17.8.756).
- D. Enforcement – Violations of limitations, conditions and requirements contained herein may constitute grounds for permit revocation, penalties or other enforcement as specified in Section 75-2-401, *et seq.*, MCA.
- E. Appeals – Any person or persons jointly or severally adversely affected by the Department's decision may request, within 15 days after the Department renders its decision, upon affidavit setting forth the grounds therefore, a hearing before the Board of Environmental Review (Board). A hearing shall be held under the provisions of the Montana Administrative Procedures Act. The filing of a request for a hearing does not stay the Department's decision, unless the Board issues a stay upon receipt of a petition and a finding that a stay is appropriate under Section 75-2-211(11)(b), MCA. The issuance of a stay on a permit by the Board postpones the effective date of the Department's decision until conclusion of the hearing and issuance of a final decision by the Board. If a stay is not issued by the Board, the Department's decision on the application is final 16 days after the Department's decision is made.
- F. Permit Inspection – As required by ARM 17.8.755, Inspection of Permit, a copy of the air quality permit shall be made available for inspection by Department personnel at the location of the permitted source.
- G. Permit Fee – Pursuant to Section 75-2-220, MCA, as amended by the 1991 Legislature, failure to pay the annual operation fee by BARI may be grounds for revocation of this permit, as required by that Section and rules adopted thereunder by the Board.

PERMIT ANALYSIS
Busch Agricultural Resources, Inc.
Permit #2723-02

I. Introduction/Process Description

Busch Agricultural Resources, Inc. (BARI) owns and operates a grain storage facility located in the SE¼ of Section 34, Township 22 North, Range 3 West, Teton County, Montana. The facility is known as the BARI – Fairfield Elevator.

A. Permitted Equipment

The BARI Fairfield Elevator consists of the following equipment:

1. North Elevator

- a. Enclosed truck unloading pit with scale;
- b. Two elevator legs with front and back pits, each rated at 3,000 bushels per hour (bph);
- c. Roto-flo distributor;
- d. Two covered screw conveyors (outgoing and reclaim);
- e. Sixteen grain storage bins (132,000 bu total);
- f. Railcar loadout; and
- g. Dust conveying system.

2. South Elevator

- a. Enclosed truck unloading pit with scale;
- b. Two covered Sweet bucket elevator legs with front and back pits, each rated at 5,000 bushels per hour (bph);
- c. Gerber Model 26-D-10 dual distributor, 10,000 bph (5,000 bph per channel);
- d. Carter Day rotary grain cleaner, 5000 bph;
- e. Four covered Sweet drag conveyors, 5000 bph each;
- f. Screening elevator let;
- g. Screening storage (two of ten bins in the annex);
- h. Crib house bins, 45,000 bu total;
- i. Ten annex bins, 12,000 bu each;
- j. Fumigation bin, 30,000 bu;
- k. Eight grain storage bins @ 97,000 bu each, (776,000 total);
- l. Five covered Sweet drag conveyors to storage bins, 9500 bph each;
- m. Five covered Sweet drag conveyors (reclaim) from the storage bins, 10,000 bph each;
- n. Covered Sweet bucket elevator leg (loadout only), 10,000 bph each;
- o. Two railcar loadouts with telescoping and swivel spouts;
- p. Two truck loadouts with spouts;
- q. Dust conveying system;
- r. Two transfer conveyors (25,000 bph total);
- s. Surge bin (25,000 bu/hr drop gate)
- t. Eleven grain storage bins @ 217,000 bu each (2,387,000 total);
- u. Drag conveyors from new storage bins;
- v. New elevator leg (20,000 bph);
- w. Two railcar loadouts
- x. Bag filter system (10,000 cfm)

B. Source Description

This grain elevator facility is designed to receive and store grain from local farmers prior to shipment to a malt plant. The storage capacity of the facility is approximately 3.49 million bushels. Typically, the facility will receive grain via truck and/or railcar. Each truck and railcar will be weighed and a sample of the inbound grain will be obtained and analyzed to ensure the grain meets quality specifications. Once the grain is approved, the trucks and/or railcars will proceed to the appropriate elevator dump pit and be unloaded.

If the grain is unloaded in the North pit, one of two 3,000 bph legs elevates the grain to a distributor where it is further conveyed to the designated storage bin or on the South leg via an extended screw conveyor. The stored grain is removed from the storage tanks via enclosed conveyors, elevated to the distributor and loaded into railcars.

If the grain is unloaded at the South pit, one of two 5,000 bph legs elevates the grain to a distributor where it is further conveyed to the designated storage bin (971,000 bushels total storage capacity) or to the 5,000 bph Carter-Day rotary grain cleaner. The stored grain is removed from the storage tanks via a single dedicated 10,000 bph load-out elevator leg into railcars. The grain is cleaned, stored, and shipped out by either truck or railcar.

C. Permit History

BARI's North Elevator was constructed in the late 1940's and the South Elevator was constructed in about 1957. As existing sources, neither elevator had a permit. BARI purchased the north elevator from Montana Merchandising Company in 1987 and purchased the south elevator from Harvest States Cooperative in early 1989. The Department of Environmental Quality (Department) issued **Permit #2723-00** to BARI on May 4, 1993.

On January 24, 1996 the Department issued **Permit #2723-01** to BARI. The permit action included the removal of the 3 million bushels per year throughput limit for each elevator and established a total throughput limit of 6 million bushels for both elevators. The modification allowed for greater operational flexibility and more efficient use of the south storage capacity without impacting annual air emissions.

D. Current Permit Action

On September 23, 2004, the Department received an application from BARI's for the installation of 11 additional 217,000 bushel storage bins, the installation of a 20,000 bph grain elevator and associated conveying equipment, and the upgrade of the two south railcar loadouts. The additional storage capacity at the facility would result in a total facility-wide storage capacity of 3.49 million bushels (MMBu), which would subject the facility to the Standards of Performance for New Stationary Sources (NSPS) Subpart DD, Standards of Performance for Grain Elevators.

In addition, the existing permit limits are based upon outdated AP-42 emission factors. The current permit action will update the AP-42 emission factors for calculating allowable emission rates.

E. Additional Information

Additional information, such as applicable rules and regulations, Best Available Control Technology (BACT) determinations, air quality impacts, and environmental assessments, is included in the analysis associated with each change to the permit.

II. Applicable Rules and Regulations

The following are partial explanations of some applicable rules and regulations that apply to the facility. The complete rules are stated in the Administrative Rules of Montana and are available, upon request, from the Department. Upon request, the Department will provide references for location of complete copies of all applicable rules and regulations or copies where appropriate.

A. ARM 17.8 - Subchapter 1, General Provisions, including, but not limited to:

1. ARM 17.8.101 Definitions. This section includes a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
2. ARM 17.8.105 Testing Requirements. Any person or persons responsible for the emission of any air contaminant into the outdoor atmosphere shall, upon written request of the Department, provide the facilities and necessary equipment, including instruments and sensing devices, and shall conduct tests, emission or ambient, for such periods of time as may be necessary using methods approved by the Department.
3. ARM 17.8.106 Source Testing Protocol. The requirements of this rule apply to any emission source testing conducted by the Department, any source, or other entity as required by any rule in this chapter, or any permit or order issued pursuant to this chapter, or the provisions of the Clean Air Act of Montana, 75-2-101, *et seq.*, Montana Code Annotated (MCA).

BARI shall comply with the requirements contained in the Montana Source Test Protocol and Procedures Manual, including, but not limited to, using the proper test methods and supplying the required reports. A copy of the Montana Source Testing Protocol and Procedures Manual is available from the Department upon request.

4. ARM 17.8.110 Malfunctions. (2) The Department must be notified promptly by telephone whenever a malfunction occurs that can be expected to create emissions in excess of any applicable emission limitation or to continue for a period greater than 4 hours.
5. ARM 17.8.111 Circumvention. (1) No person shall cause or permit the installation or use of any device or any means which, without resulting in reduction in the total amount of air contaminant emitted, conceals or dilutes an emission of air contaminant that would otherwise violate an air pollution control regulation. (2) No equipment that may produce emissions shall be operated or maintained in such a manner as to create a public nuisance.

B. ARM 17.8, Subchapter 2 - Ambient Air Quality, including, but not limited to the following:

1. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter
2. ARM 17.8.223 Ambient Air Quality Standard for PM₁₀

BARI must maintain compliance with the applicable ambient air quality standards.

C. ARM 17.8, Subchapter 3 - Emission Standards, including, but not limited to:

1. ARM 17.8.304 Visible Air Contaminants. This rule requires that no person may cause or authorize emissions to be discharged into an outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes.

2. ARM 17.8.308 Particulate Matter, Airborne. (1) This rule requires an opacity limitation of 20% for all fugitive emission sources and that reasonable precautions be taken to control emissions of airborne particulate. (2) Under this section, BARI shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter.
 3. ARM 17.8.309 Particulate Matter, Fuel Burning Equipment. This rule requires that no person shall cause, allow, or permit to be discharged into the atmosphere particulate matter caused by the combustion of fuel in excess of the amount determined by this rule.
 4. ARM 17.8.310 Particulate Matter, Industrial Process. This rule requires that no person shall cause, allow, or permit to be discharged into the atmosphere particulate matter in excess of the amount set forth in this rule.
 5. ARM 17.8.340 Standard of Performance for New Stationary Sources and Emission Guidelines for Existing Sources. This rule incorporates, by reference, the Code of Federal Regulations (CFR) 40 CFR Part 60, Standards of Performance for Grain Elevators. BARI is considered an NSPS affected facility under 40 CFR 60 and is subject to the requirements of Subpart DD – Standards of Performance for Grain Elevators. Subpart DD applies to all affected facilities constructed, modified, or reconstructed after August 3, 1978, that have the capacity to store 1 million bushels of grain. This facility has the capacity to store greater than 1 million bushels of grain; therefore, 40 CFR 60, Subpart DD, does apply to this facility.
- D. ARM 17.8, Subchapter 5 - Air Quality Permit Application, Operation, and Open Burning Fees, including, but not limited to:
1. ARM 17.8.504 Air Quality Permit Application Fees. This rule requires that an applicant submit an air quality permit application fee concurrent with the submittal of an air quality permit application. A permit application is incomplete until the proper application fee is paid to the Department. BARI submitted the appropriate permit application fee for the current permit action.
 2. ARM 17.8.505 Air Quality Operation Fees. An annual air quality operation fee must, as a condition of continued operation, be submitted to the Department by each source of air contaminants holding an air quality permit (excluding an open burning permit) issued by the Department; and the air quality operation fee is based on the actual or estimated actual amount of air pollutants emitted during the previous calendar year.
- An air quality operation fee is separate and distinct from an air quality permit application fee. The annual assessment and collection of the air quality operation fee, described above, shall take place on a calendar-year basis. The Department may insert into any final permit issued after the effective date of these rules, such conditions as may be necessary to require the payment of an air quality operation fee on a calendar-year basis, including provisions that pro-rate the required fee amount.
- E. ARM 17.8, Subchapter 7 - Permit, Construction, and Operation of Air Contaminant Sources, including but not limited to:
1. ARM 17.8.740 Definitions. This rule is a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.

2. ARM 17.8.743 Montana Air Quality Permits – When Required. This rule requires a person to obtain an air quality permit or permit alteration to construct, alter, or use any air contaminant sources that have the Potential to Emit (PTE) greater than 25 tons per year of any pollutant. BARI has PTE greater than 25 tons per year of particulate matter with an aerodynamic diameter less than 10 microns (PM₁₀); therefore, an air quality permit is required.
3. ARM 17.8.744 Montana Air Quality Permits – General Exclusions. This rule identifies the activities that are not subject to the Montana Air Quality Permit program.
4. ARM 17.8.745 Montana Air Quality Permits – Exclusion for De Minimis Changes. This rule identifies the de minimis changes at permitted facilities that do not require a permit under the Montana Air Quality Permit Program.
5. ARM 17.8.748 New or Modified Emitting Units – Permit Application Requirements. (1) This rule requires that a permit application be submitted prior to installation, alteration, or use of a source. BARI submitted the required permit application for the current permit action. (7) This rule requires that the applicant notify the public by means of legal publication in a newspaper of general circulation in the area affected by the application for a permit. BARI submitted an affidavit of publication of public notice for the September 15, 2004, issue of the *Great Falls Tribune*, a newspaper of general circulation in the Town of Great Falls in Cascade County, as proof of compliance with the public notice requirements.
6. ARM 17.8.749 Conditions for Issuance or Denial of Permit. This rule requires that the permits issued by the Department must authorize the construction and operation of the facility or emitting unit subject to the conditions in the permit and the requirements of this subchapter. This rule also requires that the permit must contain any conditions necessary to assure compliance with the Federal Clean Air Act (FCAA), the Clean Air Act of Montana, and rules adopted under those acts.
7. ARM 17.8.752 Emission Control Requirements. This rule requires a source to install the maximum air pollution control capability, which is technically practicable and economically feasible, except that BACT shall be utilized. The required BACT analysis is included in Section III of this permit analysis.
8. ARM 17.8.755 Inspection of Permit. This rule requires that air quality permits shall be made available for inspection by the Department at the location of the source.
9. ARM 17.8.756 Compliance with Other Requirements. This rule states that nothing in the permit shall be construed as relieving BARI of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq.*
10. ARM 17.8.759 Review of Permit Applications. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those permit applications that do not require the preparation of an environmental impact statement.
11. ARM 17.8.762 Duration of Permit. An air quality permit shall be valid until revoked or modified as provided in this subchapter, except that a permit issued prior to construction of a new or altered source may contain a condition providing that the permit will expire unless construction is commenced within the time specified in the permit, which in no event may be less than 1 year after the permit is issued.

12. ARM 17.8.763 Revocation of Permit. An air quality permit may be revoked upon written request of the permittee, or for violations of any requirement of the Clean Air Act of Montana, rules adopted under the Clean Air Act of Montana, the FCAA, rules adopted under the FCAA, or any applicable requirement contained in the Montana State Implementation Plan (SIP).
13. ARM 17.8.764 Administrative Amendment to Permit. An air quality permit may be amended for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack that do not result in an increase of emissions as a result of those changed conditions. The owner or operator of a facility may not increase the facility's emissions beyond permit limits unless the increase meets the criteria in ARM 17.8.745 for a de minimis change not requiring a permit, or unless the owner or operator applies for and receives another permit in accordance with ARM 17.8.748, ARM 17.8.749, ARM 17.8.752, ARM 17.8.755, and ARM 17.8.756, and with all applicable requirements in ARM Title 17, Chapter 8, Subchapters 8, 9, and 10.
14. ARM 17.8.765 Transfer of Permit. This rule states that an air quality permit may be transferred from one person to another if written notice of Intent to Transfer, including the names of the transferor and the transferee, is sent to the Department.

F. ARM 17.8 - Subchapter 8, Prevention of Significant Deterioration of Air Quality, including, but not limited to:

1. ARM 17.8.801 Definitions. This rule is a list of applicable definitions used in this chapter.
2. ARM 17.8.818 Review of Major Stationary Source and major Modifications – Source Applicability and Exemptions. The requirements contained in ARM 17.8.801-17.8.827 shall apply to any major stationary source and any major modification with respect to each pollutant subject to regulation under the Federal Clean Air Act that it would emit, except as this chapter would otherwise allow.

This facility is not a major stationary source, because it is not a listed source and does not have the PTE more than 250 tons per year or more of any air pollutant from point sources of emissions.

G. ARM 17.8 - Subchapter 12, Operating Permit Program Applicability, including, but not limited to:

1. ARM 17.8.1201 Definitions. (23) Major Source under Section 7412 of the FCAA is defined as any source having:
 - a. PTE > 100 tons/year of any pollutant;
 - b. PTE > 10 tons/year of any one Hazardous Air Pollutant (HAP), or PTE > 25 tons/year of a combination of all HAPs, or lesser quantity as the Department may establish by rule; or
 - c. PTE > 70 tons/year of PM₁₀ in a serious PM₁₀ non-attainment area.

This facility is not a major stationary source since this facility is not a listed source and the facility's PTE is below 250 tons per year of any pollutant (excluding fugitive emissions).

2. ARM 17.8.1204 Air Quality Operating Permit Program Applicability. Title V of the FCAA Amendments of 1990 requires that all sources, as defined in ARM 17.8.1204 (1), obtain a Title V Operating Permit. In reviewing and issuing Air Quality Permit #2723-02 for BARI, the following conclusions were made:
- The facility's PTE is less than 100 tons/year for all criteria pollutants.
 - The facility's PTE is less than 10 tons/year of any one HAP and less than 25 tons/year of all HAPs.
 - This source is not located in a serious PM₁₀ non-attainment area.
 - This facility is subject to NSPS Subpart DD, Standards of Performance for Grain Elevators.
 - This facility is not subject to any current NESHAP standards.
 - This source is not a Title IV affected source nor a solid waste combustion unit.
 - This source is not an EPA designated Title V source.

Based on these facts, the Department determined that BARI would be a minor source of emissions as defined under Title V. However, if minor sources subject to NSPS are required to obtain a Title V Operating Permit, BARI will be required to obtain a Title V Operating Permit.

III. Emissions Inventory

Air Pollutants (ton/year) – North Elevator						
Source	PM	PM ₁₀	NO _x	VOC	CO	SO ₂
Grain Unloading	7.4	2.4	---	---	---	---
Crib Bins (Headhouse)	1.39	0.77	---	---	---	---
Conveyors	1.39	.77	---	---	---	---
Storage Bins	1.39	.77	---	---	---	---
Grain Load-Out	.97	.08	---	---	---	---
Fugitive Dust	1.9	1.9	---	---	---	---
Total Emissions (North)	14.44	6.69	na	na	na	na
Air Pollutants (ton/year) – South Elevator						
Source	PM	PM ₁₀	NO _x	VOC	CO	SO ₂
Grain Unloading	4.09	1.34	---	---	---	---
Crib Bins (Headhouse)	1.39	.77	---	---	---	---
Grain Cleaner	1.39	.77	---	---	---	---
Conveyors	1.39	.77	---	---	---	---
Storage Bins	1.39	.77	---	---	---	---
Dust Conveyors	.03	.01	---	---	---	---
Storage (Headhouse expansion)	.03	.01	---	---	---	---
Grain Load-Out	.01	.001	---	---	---	---
Fugitive Dust	1.9	1.9	---	---	---	---
Total Emissions (South)	14.93	7.11	na	na	na	na
Total Facility Emissions	29.37	13.80	na	na	na	na

North Elevator

Grain Unloading (North Pit)

Maximum Annual Throughput = 12,000,000 bu/yr

Approximate Product Density = 48 lb/bu

Approximate Process Rate = 48 lb/bu * 12 x 10⁶ bu/yr * 1 ton/2000 lb = 288,000 ton/yr

PM Emissions:

Emission Factor = 0.18 lb/ton { AP-42, Table 9.9.1-1, 5/98, Straight Truck }
 Estimated Control Efficiency = 84.2% { Cyclone-Permit Application }
 Calculations: $288,000 \text{ ton/yr} * 0.18 \text{ lb/ton} * ((1 - 0.842) + (0.85 * (1 - 0.842))) * 1 \text{ ton/2,000 lb}$
 $= 7.4 \text{ ton/yr}$

PM₁₀ Emissions:

Emission Factor = 0.059 lb/ton { AP-42, Table 9.9.1-1, 5/98, Straight Truck }
 Estimated Control Efficiency = 84.2% { Cyclone-Permit Application }
 Calculations: $288,000 \text{ ton/yr} * 0.059 \text{ lb/ton} * ((1 - 0.842) + (0.85 * (1 - 0.842))) * 1 \text{ ton/2,000 lb}$
 $= 2.4 \text{ ton/yr}$

Crib Bins (Headhouse)

Maximum Annual Throughput = 12,000,000 bu/year
 Approximate Product Density = 48 lb/bu
 Approximate Process Rate = $48 \text{ lb/bu} * 12 * 10^6 \text{ bu/yr} * 1 \text{ ton/2000 lb} = 288,000 \text{ ton/yr}$

PM Emissions:

Emission Factor = 0.061 lb/ton { AP-42, Table 9.9.1-1, 5/98, Headhouse and Grain Handling }
 Estimated Control Efficiency = 84.2% { Cyclone-Permit Application }
 Calculations: $288,000 \text{ ton/yr} * 0.061 \text{ lb/ton} * (1 - 0.842) * 1 \text{ ton/2,000 lb} = 1.39 \text{ ton/yr}$

PM₁₀ Emissions:

Emission Factor = 0.034 lb/ton { AP-42, Table 9.9.1-1, 5/98, Headhouse and Grain Handling }
 Estimated Control Efficiency = 84.2% { Cyclone-Permit Application }
 Calculations: $288,000 \text{ ton/yr} * 0.034 \text{ lb/ton} * (1 - 0.842) * 1 \text{ ton/2,000 lb} = 0.77 \text{ ton/yr}$

Conveyors (Bin Removal)

Maximum Annual Throughput = 12,000,000 bu/year
 Approximate Product Density = 48 lb/bu
 Approximate Process Rate = $48 \text{ lb/bu} * 12.0 * 10^6 \text{ bu/yr} * 1 \text{ ton/2000 lb} = 288,000 \text{ ton/yr}$

PM Emissions:

Emission Factor = 0.061 lb/ton { AP-42, Table 9.9.1-1, 5/98 }
 Estimated Control Efficiency = 84.2% { Cyclone - Permit Application }
 Calculations: $288,000 \text{ ton/yr} * 0.061 \text{ lb/ton} * (1 - 0.842) * 1 \text{ ton/2,000 lb} = 1.39 \text{ ton/yr}$

PM₁₀ Emissions:

Emission Factor = 0.034 lb/ton { AP-42, Table 9.9.1-1, 5/98 }
 Estimated Control Efficiency = 84.2%
 Calculations: $288,000 \text{ ton/yr} * 0.034 \text{ lb/ton} * (1 - 0.842) * 1 \text{ ton/2,000 lb} = .77 \text{ ton/yr}$

Headhouse (Storage Bins)

Maximum Annual Throughput = 12,000,000 bu/yr
 Approximate Product Density = 48 lb/bu
 Approximate Process Rate = $48 \text{ lb/bu} * 12.0 * 10^6 \text{ bu/yr} * 1 \text{ ton/2000 lb} = 288,000 \text{ ton/yr}$

PM Emissions:

Emission Factor = 0.061 lb/ton { AP-42, Table 9.9.1-1, 5/98, Headhouse and Grain Handling }
 Estimated Control Efficiency = 84.2% { Cyclone - Permit Application }
 Calculations: $288,000 \text{ ton/yr} * 0.061 \text{ lb/ton} * (1 - 0.842) * 1 \text{ ton/2,000 lb} = 1.39 \text{ ton/yr}$

PM₁₀ Emissions:

Emission Factor = 0.034 lb/ton { AP-42, Table 9.9.1-1, 5/98, Headhouse and Grain Handling }
 Estimated Control Efficiency = 84.2% { Cyclone - Permit Application }
 Calculations: $288,000 \text{ ton/yr} * 0.034 \text{ lb/ton} * (1 - 0.842) * 1 \text{ ton/2,000 lb} = .77 \text{ ton/yr}$

Load-Out/Shipping

Maximum Annual Throughput = 12,000,000 bu/yr

Approximate Product Density = 48 lb/bu

Approximate Process Rate = 48 lb/bu * 12.0 x 10⁶ bu/yr * 1 ton/2000 lb = 288,000 ton/yr

PM Emissions:

Emission Factor = 0.027 lb/ton

{ AP-42, Table 9.9.1-1, 5/98, Grain Shipping/Railcar }

Estimated Control Efficiency = 75%

{ Tel. Chute – Permit Application }

Calculations: 288,000 ton/yr * 0.027 lb/ton * (1-0.75) * 1 ton/2,000 lb = .97 ton/yr

PM₁₀ Emissions:

Emission Factor = 0.0022 lb/ton

{ AP-42, Table 9.9.1-1, 5/98 }

Estimated Control Efficiency = 75%

Calculations: 288,000 ton/yr * 0.0022 lb/ton * (1-0.75) * 1 ton/2,000 lb = .079 ton/yr

Fugitive Dust, Access Roads

Fugitive Emissions:

Calculations: 1.56 lb/VMT * 1.3 VMT/hr = 2.0 lb/hr

2.0 lb/hr * 1875 hr/yr = 1.9 ton/yr

South Elevator

Grain Unloading (South Pit)

Maximum Annual Throughput = 12,000,000 bu/yr

Approximate Product Density = 48 lb/bu

Approximate Process Rate = 48 lb/bu * 12 x 10⁶ bu/yr * 1 ton/2000 lb = 288,000 ton/yr

PM Emissions:

Emission Factor = 0.18 lb/ton

{ AP-42, Table 9.9.1-1, 5/98, Straight Truck }

Estimated Control Efficiency = 84.2%

{ Cyclone-Permit Application }

Calculations: 288,000 ton/yr * 0.18 lb/ton * (1 - 0.842) * 1 ton/2,000 lb = 4.09 ton/yr

PM₁₀ Emissions:

Emission Factor = 0.059 lb/ton

{ AP-42, Table 9.9.1-1, 5/98, Straight Truck }

Estimated Control Efficiency = 84.2%

{ Cyclone-Permit Application }

Calculations: 288,000 ton/yr * 0.059 lb/ton * (1 - 0.842) * 1 ton/2,000 lb = 1.34 ton/yr

Crib Bins (Headhouse)

Maximum Annual Throughput = 12,000,000 bu/year

Approximate Product Density = 48 lb/bu

Approximate Process Rate = 48 lb/bu * 12 x 10⁶ bu/yr * 1 ton/2000 lb = 288,000 ton/yr

PM Emissions:

Emission Factor = 0.061 lb/ton

{ AP-42, Table 9.9.1-1, 5/98, Headhouse and Grain Handling }

Estimated Control Efficiency = 84.2%

{ Cyclone-Permit Application }

Calculations: 288,000 ton/yr * 0.061 lb/ton * (1 - 0.842) * 1 ton/2,000 lb = 1.39 ton/year

PM₁₀ Emissions:

Emission Factor = 0.034 lb/ton

{ AP-42, Table 9.9.1-1, 5/98, Headhouse and Grain Handling }

Estimated Control Efficiency = 84.2%

{ Cyclone-Permit Application }

Calculations: 288,000 ton/yr * 0.034 lb/ton * (1 - 0.842) * 1 ton/2,000 lb = 0.77 ton/yr

Grain Cleaner

Maximum Annual Throughput = 12,000,000 bu/year

Approximate Product Density = 48 lb/bu

Approximate Process Rate = 48 lb/bu * 12 x 10⁶ bu/yr * 1 ton/2000 lb = 288,000 ton/yr

PM Emissions:

Emission Factor = 0.061 lb/ton {AP-42, Table 9.9.1-1, 5/98, Headhouse and Grain Handling}

Estimated Control Efficiency = 84.2% {Cyclone-Permit Application}

Calculations: 288,000 ton/yr * 0.061 lb/ton * (1 - 0.842) * 1 ton/2,000 lb = 1.39 ton/yr

PM₁₀ Emissions:

Emission Factor = 0.034 lb/ton {AP-42, Table 9.9.1-1, 5/98, Headhouse and Grain Handling}

Estimated Control Efficiency = 84.2% {Cyclone-Permit Application}

Calculations: 288,000 ton/yr * 0.034 lb/ton * (1 - 0.842) * 1 ton/2,000 lb = 0.77 ton/yr

Conveyors (Bin Removal)

Maximum Annual Throughput = 12,000,000 bu/year

Approximate Product Density = 48 lb/bu

Approximate Process Rate = 48 lb/bu * 12.0 x 10⁶ bu/yr * 1 ton/2000 lb = 288,000 ton/yr

PM Emissions:

Emission Factor = 0.061 lb/ton {AP-42, Table 9.9.1-1, 5/98}

Estimated Control Efficiency = 84.2% {Cyclone - Permit Application}

Calculations: 288,000 ton/yr * 0.061 lb/ton * (1-0.842) * 1 ton/2,000 lb = 1.39 ton/yr

PM₁₀ Emissions:

Emission Factor = 0.034 lb/ton {AP-42, Table 9.9.1-1, 5/98}

Estimated Control Efficiency = 84.2%

Calculations: 288,000 ton/yr * 0.034 lb/ton * (1-0.842) 1 ton/2,000 lb = .77 ton/yr

Headhouse (Storage Bins)

Maximum Annual Throughput = 12,000,000 bu/yr

Approximate Product Density = 48 lb/bu

Approximate Process Rate = 48 lb/bu * 12.0 x 10⁶ bu/yr * 1 ton/2000 lb = 288,000 ton/yr

PM Emissions:

Emission Factor = 0.086 lb/ton {AP-42, Table 9.9.1-1, 5/98, Truck}

Estimated Control Efficiency = 0% {Permit Application}

Calculations: 418,110 ton/yr * 0.086 lb/ton * 1 ton/2,000 lb = 18 ton/year

PM₁₀ Emissions:

Emission Factor = 0.029 lb/ton {AP-42, Table 9.9.1-1, 5/98, Truck}

Estimated Control Efficiency = 0% {Permit Application}

Calculations: 418,110 ton/yr * 0.059 lb/ton * 1 ton/2,000 lb = 12.3 ton/yr

Dust Conveyors

Maximum Annual Throughput = 12,000,000 bu/yr

Approximate Product Density = 48 lb/bu

Approximate Process Rate = 48 lb/bu * 12.0 x 10⁶ bu/yr * 1 ton/2000 lb = 288,000 ton/yr

PM Emissions:

Emission Factor = 0.061 lb/ton {AP-42, Table 9.9.1-1, 5/98}

Estimated Control Efficiency = 99.7% {Vent Filter - Permit Application}

Calculations: 288,000 ton/yr * 0.061 lb/ton * (1-0.997) * 1 ton/2,000 lb = .03 ton/yr

PM₁₀ Emissions:

Emission Factor = 0.034 lb/ton { AP-42, Table 9.9.1-1, 5/98 }

Estimated Control Efficiency = 99.7%

Calculations: $288,000 \text{ ton/yr} * 0.034 \text{ lb/ton} * (1-0.997) \text{ 1 ton/2,000 lb} = .01 \text{ ton/yr}$

Headhouse (New Storage Bins)

Maximum Annual Throughput = 12,000,000 bu/yr

Approximate Product Density = 48 lb/bu

Approximate Process Rate = $48 \text{ lb/bu} * 12.0 \times 10^6 \text{ bu/yr} * 1 \text{ ton/2000 lb} = 288,000 \text{ ton/yr}$

PM Emissions:

Emission Factor = 0.061 lb/ton { AP-42, Table 9.9.1-1, 5/98, Headhouse and Grain Handling }

Estimated Control Efficiency = 99.7% { MAC Baghouse - Permit Application }

Calculations: $288,000 \text{ ton/yr} * 0.061 \text{ lb/ton} * (1-.842) * 1 \text{ ton/2,000 lb} = .03 \text{ ton/yr}$

PM₁₀ Emissions:

Emission Factor = 0.034 lb/ton { AP-42, Table 9.9.1-1, 5/98, Headhouse and Grain Handling }

Estimated Control Efficiency = 99.7% { MAC Baghouse - Permit Application }

Calculations: $288,000 \text{ ton/yr} * 0.059 \text{ lb/ton} * (1-.842) * 1 \text{ ton/2,000 lb} = .01 \text{ ton/yr}$

Load-Out/Shipping

Maximum Annual Throughput = 12,000,000 bu/yr

Approximate Product Density = 48 lb/bu

Approximate Process Rate = $48 \text{ lb/bu} * 12.0 \times 10^6 \text{ bu/yr} * 1 \text{ ton/2000 lb} = 288,000 \text{ ton/yr}$

PM Emissions:

Emission Factor = 0.027 lb/ton { AP-42, Table 9.9.1-1, 5/98, Grain Shipping/Railcar }

Estimated Control Efficiency = 99.7% { Cyclone – Permit Application }

Calculations: $288,000 \text{ ton/yr} * 0.027 \text{ lb/ton} * (1-0.997) * 1 \text{ ton/2,000 lb} = .01 \text{ ton/yr}$

PM₁₀ Emissions:

Emission Factor = 0.0022 lb/ton { AP-42, Table 9.9.1-1, 5/98 }

Estimated Control Efficiency = 99.7%

Calculations: $288,000 \text{ ton/yr} * 0.0022 \text{ lb/ton} * (1-0.997) \text{ 1 ton/2,000 lb} = .001 \text{ ton/yr}$

Fugitive Dust, Access Roads**Fugitive Emissions:**

Calculations: $1.56 \text{ lb/VMT} * 1.3 \text{ VMT/hr} = 2.0 \text{ lb/hr}$

$2.0 \text{ lb/hr} * 1875 \text{ hr/yr} = 1.9 \text{ ton/yr}$

IV. Best Available Control Technology Analysis

A BACT analysis is required for any new or altered source. BARI shall install on the new or altered source the maximum air pollution control capability that is technically practicable and economically feasible, except that BACT shall be used. The following are the options the Department has reviewed to make a BACT determination for the proposed facility.

A. Electrostatic Precipitator

An electrostatic precipitator (ESP) ionizes the contaminated air flowing between oppositely charged electrodes. These charged particles migrate towards the oppositely charged plates, which are eventually removed and collected at the bottom of the ESP. An ESP can handle large gas volumes and are very efficient at removing small particles with high removal efficiencies ranging from approximately 90% to 99%. While an ESP can achieve high removal efficiencies, the installation and operation costs of the ESP are considerably higher than other similar control technologies. For this reason, an ESP would not constitute BACT in this case.

B. Baghouse

Fabric filters (baghouses) are used to collect dry particles from a gas stream. As the gas stream passes through the fabric filter, the dust particles are collected and retained by the fabric. Baghouses are very efficient at removing small particles, with removal efficiencies commonly ranging from 95 to 99%. A baghouse can achieve high removal efficiencies and the installation and operation costs of a baghouse are considerably less than an ESP. Therefore, the Department determined that the operation and maintenance of a baghouse constitute BACT for this facility.

The control options selected have controls and control costs comparable to other recently permitted similar sources and are capable of achieving the appropriate air quality emissions standards.

V. Existing Air Quality & Ambient Air Impact Analysis

BARI's Fairfield Grain Elevator is located in the SE¼ of Section 34, Township 22 North, Range 3 West, Teton County, Montana. The air quality of this area is classified as either Better than National Standards or unclassifiable/attainment of the National Ambient Air Quality Standards (NAAQS) for criteria pollutants. In the view of the Department, the amount of controlled emissions from the proposed permit change will not cause an exceedance of any ambient air quality standard.

VI. Taking or Damaging Implication Analysis

As required by 2-10-101 through 105, MCA, the Department has conducted a private property taking and damaging assessment and has determined there are no taking or damaging implications.

VII. Environmental Assessment

An environmental assessment, required by the Montana Environmental Policy Act, was completed for this project. A copy is attached.

DEPARTMENT OF ENVIRONMENTAL QUALITY
Permitting and Compliance Division
Air Resources Management Bureau
P.O. Box 200901, Helena, Montana 59620
(406) 444-3490

FINAL ENVIRONMENTAL ASSESSMENT (EA)

Issued For: Busch Agricultural Services, Inc.
Fairfield Elevator
P.O. Box 789
Fairfield, MT 59436

Air Quality Permit Number: 2723-02
Preliminary Determination Issued: 11/01/04
Department Decision Issued: 11/17/04
Permit Final: 12/03/04

1. *Legal Description of Site:* The legal description of the facility is the SE¼ of Section 34, Township 22 North, Range 3 West, Teton County, Montana.
2. *Description of Project:* The Department proposes to issue a modification of BARI's air quality preconstruction permit to increase the storage capacity of the facility from 1.1 million to 3.49 million bushels of permanent storage capacity. The facility would consist of equipment for unloading, storing, and loading grain

The proposed grain elevator facility would be designed to receive and store grain from local farmers prior to shipment to a malt plant. Typically, the facility would receive grain via a truck and/or railcar. Each truck and railcar would be weighed and a sample of the inbound grain would be obtained to ensure the grain meets quality specifications. Once the grain was approved and meets quality control specifications, the trucks and/or railcars would proceed to the appropriate elevator dump pit and unload. Once unloaded, the grain would be conveyed to the distributor where it would be delivered to the appropriate storage silo/tank. For shipment to the malt plant, the grain would be removed from the storage tanks using enclosed conveyors that elevate the grain back to the distributor where the trucks and/or railcar would be loaded.
3. *Objectives of Project:* The proposed facility would receive, store, and ship grain for the area farmers. The proposed modification to the facility would provide area producers with a more efficient site for high-speed distribution of locally produced whole grains.
4. *Alternatives Considered:* In addition to the proposed action, the Department also considered the "no action" alternative. The "no action" alternative would deny the issuance of the air quality preconstruction permit to the proposed facility. However, the Department does not consider the "no action" alternative to be appropriate because BARI demonstrated compliance with all applicable rules and regulations as required for permit issuance. Therefore, the "no-action" alternative was eliminated from further consideration.
5. A listing of mitigation, stipulations, and other controls: A list of enforceable conditions, including a BACT analysis, would be included in Permit #2723-02.

6. Regulatory effects on private property: The Department considered alternatives to the conditions that would be imposed in this permit as part of the permit development. The Department determined that the permit conditions would be reasonably necessary to ensure compliance with applicable requirements and demonstrate compliance with those requirements and do not unduly restrict private property rights.
7. The following table summarizes the potential physical and biological effects of the proposed project on the human environment. The "no action" alternative was discussed previously.

Potential Physical and Biological Effects							
		Major	Moderate	Minor	None	Unknown	Comments Included
A	Terrestrial and Aquatic Life and Habitats			X			yes
B	Water Quality, Quantity, and Distribution			X			yes
C	Geology and Soil Quality, Stability, and Moisture			X			yes
D	Vegetation Cover, Quantity, and Quality			X			yes
E	Aesthetics			X			yes
F	Air Quality			X			yes
G	Unique Endangered, Fragile, or Limited Environmental Resource			X			yes
H	Demands on Environmental Resource of Water, Air and Energy			X			yes
I	Historical and Archaeological Sites			X			yes
J	Cumulative and Secondary Impacts			X			yes

SUMMARY OF COMMENTS ON POTENTIAL PHYSICAL AND BIOLOGICAL EFFECTS: The following comments have been prepared by the Department.

A. Terrestrial and Aquatic Life and Habitats

The proposed operation of the grain elevator would have only minor impacts on the terrestrial and aquatic life and habitats where the facility would operate because it would emit a relatively small increase of air emissions, operate intermittently, and be located in an area with good air dispersion characteristics. In addition, the facility would be relatively small in size and create limited land disturbance associated with the construction phase of the project. Overall, therefore, the operation of the facility would present only minor impacts to the terrestrial and aquatic life and habitats.

B. Water Quality, Quantity, and Distribution

Although a relatively small increase in air emissions would result from the proposed grain elevator, there would be little, if any, impact on the water quality, quantity, and distribution because the facility would not discharge process effluent to any surface water drainage system, local groundwater aquifer, or alter the course or magnitude of groundwater or any surface water drainage system. There would be a septic system and drainfield located at the site. While deposition of air emissions to the surrounding area would occur, the Department determined that because of the facility's relatively small size, good area dispersion characteristics (i.e., wind speed and wind direction), and conditions placed in Permit #2723-02, the impact of the proposed project on the quality, quantity, and distribution of water would be minor.

C. Geology and Soil Quality, Stability, and Moisture

Overall, there would be minor impacts on the local geology and soil quality, stability, and moisture from the proposed project because of the small size of the facility and limited amount of construction activity that would be required for the modification of the existing

facility. In addition, a small amount of deposition of air emissions would occur in the area of the facility; however, the Department determined that because of the air dispersion characteristics and conditions placed in Permit #2723-02, the impact of the proposed project would be minor. Therefore, the impact on the local geology and soil quality, stability, and moisture surrounding the site would be minor.

D. Vegetation Cover, Quantity, and Quality

As a result of the proposed project, there would be minor impacts on the local vegetation cover, quantity, and quality because small amounts of vegetation would be disturbed or removed during the initial construction of the proposed project. During operation, the deposition of air emissions would occur on the surrounding vegetation. However, the Department determined that because of the small size of the facility, small quantity of emissions, good air dispersion characteristics, and conditions placed in Permit #2723-02, the impact of the proposed project on the quantity and quality of the local vegetation cover would be minor.

E. Aesthetics

The proposed modification to the grain elevator would be visible and would create additional noise in the area of operation. However, because of the location and relatively small size of the facility, intermittent and seasonal operation, and conditions placed in Permit #2723-02 to control emissions (including visible emissions) from the facility, any aesthetic impact would be minor. The aesthetic effects would be minimized because the visible emissions would be limited by air quality Permit #2723-02 to less than 20% opacity.

F. Air Quality

The proposed grain elevator impacts would be minor to the local air quality because of the small amount of air emissions emitted, local air dispersion characteristics, and seasonal operation of the proposed facility. Air emissions from the facility would be minimized as a result of the conditions placed in Permit #2723-02 to limit opacity and particulate emissions. In addition, air pollution controls such as baghouses, cyclones, enclosures, and water/chemical sprays and other pollutant suppression methods at the site would reduce air emissions from equipment operations, haul roads, and parking areas. Overall, therefore, the impact on the local air quality would be minor.

G. Unique Endangered, Fragile, or Limited Environmental Resources

In an effort to identify any unique endangered, fragile, or limited environmental resources in the area, the Department contacted the Montana Natural Heritage Program, Natural Resource Information System (NRIS). The NRIS search did not identify any species of special concern in the vicinity of the project area. In this case, the area was defined by the section, township, and range of the proposed location with an additional 1-mile buffer zone. Due to the minor amounts of construction that would be required, the relatively low levels of pollutants that would be emitted, dispersion characteristics of pollutants and the atmosphere, conditions that would be placed in Permit #2723-02, and because the NRIS search did not identify any species of special concern in the vicinity of the project area, the Department determined that the chance of the project impacting any species of special concern would be minor.

H. Demands on Environmental Resource of Water, Air, and Energy

The proposed project would have only minor impacts on water and air resources because of the small size and minimal amount of air emissions from the proposed project. As described in Section 7.F. of this EA, pollutant emissions generated from the facility would have

minimal impacts on air quality in the immediate and surrounding area. The Department determined that as a result of the relatively small amount of air emissions, local air dispersion characteristics, and conditions in Permit #2723-02, the impact of the proposed project on the demands on water and air resources would be minor. The proposed project would have minor impacts on the electrical energy supply; however, the local utility company would have no difficulty in supplying the electricity. Overall, therefore, the impacts on the demands on environmental resources of water, air, and energy would be minor.

I. Historical and Archaeological Sites

In an effort to identify any historical and archaeological sites near the proposed project area, the Department contacted the Montana Historical Society - Historic Preservation Office (SHPO). According to the SHPO records, there are no previously recorded cultural historic sites within the designated search locale. Since the proposed project would be in a relatively small area, the proposed project would have a low potential of impacting unknown or unrecorded cultural properties. Therefore, the impacts on historical archeological sites would be minor.

J. Cumulative and Secondary Impacts

Overall, the proposed grain elevator would cause minor impacts on the physical and biological environment because the facility would result in an increase in air emissions and create additional aesthetic impacts in the area. However, as a result of the relatively small size, intermittent and seasonal use, and conditions and limitations contained within Permit #2723-02, impacts from the facility would be minor.

8. The following table summarizes the potential social and economic effects of the proposed project on the human environment. The "no action" alternative was discussed previously.

Potential Social and Economic Effects							
		Major	Moderate	Minor	None	Unknown	Comments Included
A	Social Structures and Mores				X		yes
B	Cultural Uniqueness and Diversity				X		yes
C	Local and State Tax Base and Tax Revenue			X			yes
D	Agricultural or Industrial Production			X			yes
E	Human Health			X			yes
F	Access to and Quality of Recreational and Wilderness Activities			X			yes
G	Quantity and Distribution of Employment			X			yes
H	Distribution of Population				X		yes
I	Demands for Government Services			X			yes
J	Industrial and Commercial Activity			X			yes
K	Locally Adopted Environmental Plans and Goals				X		yes
L	Cumulative and Secondary Impacts			X			yes

SUMMARY OF COMMENTS ON POTENTIAL SOCIAL AND ECONOMIC EFFECTS: The following comments have been prepared by the Department.

A. Social Structures and Mores

The proposed grain elevator would not alter or disrupt any local lifestyles or communities (social structures or mores) in the area of proposed operation because the facility would be small in size; would operate intermittently; and would be consistent with the social structures and mores of the local area. Therefore, the existing social structures and mores would not be impacted as a result of this permitting action.

B. Cultural Uniqueness and Diversity

In the view of the Department, the proposed facility would have no impact on the cultural uniqueness of the proposed area of operation because the facility would be located in an agricultural setting. The proposed facility would be an agricultural operation and the culture of the local area is predominantly agricultural; therefore, the proposed project would not have an effect on cultural diversity. The surrounding area would remain unchanged as result of the proposed project.

C. Local and State Tax Base and Tax Revenue

The proposed project would result in minor impacts to the local and state tax base and tax revenue because of the relatively small size of the proposed project. No additional employees would be added to the local and state tax base as a result of issuing Permit #2723-02; therefore, the impacts on the local and state tax base and tax revenue would be minor. Overall, however, the proposed facility would serve a specific need and generate local revenue.

D. Agricultural or Industrial Production

The proposed project would be located at an existing facility; therefore, the Department would not expect that the permitted operation would significantly impact or displace agricultural production. Farmers in the area would have a local facility to receive, store, and ship their products; thus, the facility would have a minor impact on local industrial production. Overall, the impacts on the local agriculture and industrial production would be minor.

E. Human Health

The proposed project would result in minor impacts to human health because of the relatively small amount of air emissions discharged from the proposed facility, seasonal or intermittent operations, and conditions placed in the air quality Permit #2723-02. Overall, the project would comply with all applicable rules, regulations, and standards, which would be protective of human health and the environment.

F. Access to and Quality of Recreational and Wilderness Activities

The proposed grain elevator would have a minor effect on the access to and quality of recreational and wilderness activities because of the location and relatively small size of the facility. Therefore, the Department would not expect that the proposed facility would significantly impact the access to and quality of recreation and wilderness activities. Emissions from the facility would be minimized as a result the facility's pollution control equipment, seasonal nature of the operation, and conditions placed in Permit #2723-02. Therefore, the associated impacts on the access to and quality of recreational and wilderness activities would be minor.

G. Quantity and Distribution of Employment

As a result of the relatively small size of the proposed operation, the quantity and distribution of employment in the area would be minor. No additional employees would be required for operation of the facility after the modification. Overall, therefore, the associated impacts to the quantity and distribution of employment in the local area would be minor.

H. Distribution of Population

The proposed project would not affect distribution of population in the area because the facility would be located in a relatively remote location. The proposed project would not create any new permanent employment that would cause an increase in population in the area. In addition, the proposed project would not have impacts that would cause a decrease in the distribution of population in the surrounding area because the facility would be relatively small by industrial standards and the facility would only emit relatively small amounts of emissions.

I. Demands of Government Services

Demands on government services from this facility would be minor because of the minor increase in truck traffic on existing roads in the area while the facility is operating, and the acquisition of the appropriate permits from government agencies and subsequent inspections. Overall, however, demands for government services would be minor.

J. Industrial and Commercial Activity

The proposed grain elevator would represent only a minor increase in the industrial activity in any given area because of the small size and seasonal operating nature of the facility. Construction of the facility would result in temporary increases in the commercial activity in the area. Therefore, only minor additional industrial or commercial activity would result from the grain elevator operations.

K. Locally Adopted Environmental Plans and Goals

The Department is not aware of any locally adopted environmental plans or goals. However, the state air quality requirements would protect the local site and the surrounding environment from impacts resulting from the operation of the proposed grain elevator.

L. Cumulative and Secondary Impacts

The proposed modification to the grain elevator would cause minor cumulative and secondary impacts to the social and economic aspects of the human environment in the immediate area because of the potential increase in air emissions, and increase in local traffic in the immediate area. Increases in local traffic would have minor impacts on the traffic in the immediate area and because the source would be relatively small, only minor economic impacts to the local economy would be expected from the operation of the facility. Significant new businesses would not likely be drawn to the local area and no permanent jobs would be created as a result of the proposed project. Overall, the cumulative and secondary impacts from this project would result in a minor impact to the immediate area.

Recommendation: No EIS is required.

If an EIS is not required, explain why the EA is an appropriate level of analysis: The potential effects resulting from construction and operation of the proposed facility would be minor, therefore, an EIS would not be required. Air quality Permit #2723-02 includes conditions and limitations to ensure the facility would operate in compliance with all applicable air quality rules and regulations.

Other groups or agencies contacted or that may have overlapping jurisdiction: Montana Department of Natural Resources, MNHP, and SHPO.

Individuals or groups contributing to this EA: Montana Department of Environmental Quality, Air Resources Management Bureau, MNHP, and SHPO.

EA prepared by: Julie Merkel

Date: October 29, 2004